

REMARKS

Claims 1, 3-5 and 15-46 are currently pending. Claims 15-46 are withdrawn from consideration as being directed to a non-elected invention. In the final Office Action dated January 3, 2008, the Examiner made the following disposition:

- A.) Commented on the claims.
- B.) Rejected claims 1 and 3-5 under 35 U.S.C. §112, first paragraph.
- C.) Rejected claims 1 and 3-5 under 35 U.S.C. §112, second paragraph.
- D.) Rejected claims 1 and 3-5 under 35 U.S.C. §102(b) or §103(a) in view of *Hayashi, et al.* (JP 10-334915) (“*Hayashi*”).

Applicants respectfully traverse the rejections and address the Examiner’s disposition below.

A.) Comment on the claims:

Contrary to the Examiner’s assertion, Applicant’s specification does not describe natural graphite as having an inherently rhombohedral structure. Instead, paragraph [0071] explains that a rhombohedral structure is desirable for the natural graphite because this shape further decreases the initial irreversible capacity, and that natural graphite can be milled “under a proper condition” to achieve the rhombohedral structure in the crystalline structure.

B.) Rejection of claims 1 and 3-5 under 35 U.S.C. §112, first paragraph:

Claims 1 and 3-5 each have been amended as per the Examiner’s recommendation to overcome the rejection.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

C.) Rejection of claims 1 and 3-5 under 35 U.S.C. §112, second paragraph:

Claims 1 and 3-5 each have been amended as per the Examiner’s recommendation to overcome the rejection.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

D.) Rejection of claims 1 and 3-5 under 35 U.S.C. §102(b) or §103(a) in view of *Hayashi, et al.* (JP 10-334915) (“*Hayashi*”):

Applicants respectfully disagree with the rejection.

Independent claims 1 and 3-5 each claim subject matter relating to a non-aqueous electrolyte secondary battery comprising a positive electrode, a negative electrode and a non-aqueous electrolyte. The negative electrode contains graphite containing material that includes graphite particles having structural differences between an inside of the particles and an outermost surface of the particles. The outermost surface of the graphite particles exhibits a weight reduction as measured by a differentiation of the thermogravimetric curve of at least 5% and at most 40% relative to the inside of the particles.

Applicants note that claims 1 and 3-5 do not recite product-by-process limitations. Instead, claims 1 and 3-5 recite that the non-graphite material exhibits a particular property. Specifically, the non-graphite material exhibits a *property* of a weight reduction as measured by a differentiation of a thermogravimetric curve as obtained by thermogravimetric analysis in an airflow of at least 5% and at most 40%.

This is clearly unlike *Hayashi*, which fails to disclose or suggest a non-graphite material that exhibits a property of a weight reduction as measured by a differentiation of a thermogravimetric curve as obtained by thermogravimetric analysis in an airflow of at least 5% and at most 40%. This subject matter is simply not addressed in *Hayashi*. Accordingly, *Hayashi* could not teach or even suggest this claimed subject matter.

Furthermore, with respect to claims 1 and 4, *Hayashi* fails to disclose or suggest graphite particles having a rhombohedral structure. Instead, *Hayashi* appears to teach “spherical” as the preferred particle shape. As explained above, Applicants’ specification describes in paragraph [0071] that natural graphite can be milled “under a proper condition” to achieve the rhombohedral structure in the crystalline structure, and that the rhombohedral shape is desirable because this shape further decreases the initial irreversible capacity.

For at least the reasons presented above, *Hayashi* fails to disclose or suggest claims 1 and 3-5.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

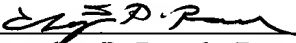
CONCLUSION

In view of the foregoing, it is submitted that claims 1 and 3-5 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Applicants believe there is no fee due at this time. However, the Commissioner is hereby authorized to deduct any deficiency or credit any overpayment to Deposit Account No. 19-3140.

Respectfully submitted,

SONNENSCHN NATH & ROSENTHAL LLP

By: 
Christopher P. Rauch, Reg. No. 45,034
SONNENSCHN NATH & ROSENTHAL LLP
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, Illinois 60606-1080
Tel. No. (312) 876-8000
Customer No. 26263

ATTORNEYS FOR APPLICANT